

5 **WHAT IS CLAIMED IS:**

- 1 . At least one CNGH0004 nucleic acid, comprising at least one polynucleotide comprising or complementary to all of the contiguous nucleic acids 1001-11713 of SEQ ID NO:1.
- 2 . At least one CNGH0004 nucleic acid, comprising at least one polynucleotide comprising or complementary to at least 45 contiguous nucleotides 1001-11713 of SEQ ID NO:1.
- 3 . At least one CNGH0004 nucleic acid, comprising at least one polynucleotide encoding the amino acid sequence of SEQ ID NO:2, or a polynucleotide complementary thereto.
- 4 . At least one CNGH0004 nucleic acid, comprising at least one polynucleotide having at least 95-99% identity to a nucleotide sequence comprising or complementary to all of the contiguous nucleotides 1001-11713 of SEQ ID NO:1.
- 5 . At least one CNGH0004 nucleic acid, comprising at least one polynucleotide having at least 95-99% identity to a nucleotide sequence comprising or complementary to at least 45 of the contiguous nucleotides 1001-11713 of SEQ ID NO:1.
- 6 . At least one CNGH0004 nucleic acid, comprising at least one polynucleotide that hybridizes under stringent conditions to all of the contiguous nucleotides of SEQ ID NO:1 or a polynucleotide complementary thereto.
- 7 . At least one CNGH0004 nucleic acid, comprising at least one polynucleotide that hybridizes under stringent conditions to at least 45 contiguous nucleotides of SEQ ID NO:1 or a polynucleotide complementary thereto.
- 8 . At least one CNGH0004 polypeptide, comprising all of the contiguous amino acids of SEQ ID NO:2.
- 9 . At least one CNGH0004 polypeptide, comprising at least 15 contiguous amino acids of SEQ ID NO:2.
- 10 . At least one CNGH0004 polypeptide, comprising at least one domain of SEQ ID NO:2.
- 11 . At least one CNGH0004 polypeptide, comprising at least one polypeptide having at least 90-99% identity to an amino acid sequence comprising all of the contiguous amino acids of SEQ ID NO:2.
- 12 . At least one CNGH0004 polypeptide, comprising at least one polypeptide having at least 90-99% identity to an amino acid sequence comprising at least 15 of the

5 contiguous amino acids of SEQ ID NO:2.

13. At least one CNGH0004 polypeptide, comprising at least one polypeptide encoded by at least one polynucleotide that hybridizes under stringent conditions to all of the contiguous nucleotides SEQ ID NO:1 or a polynucleotide complementary thereto.

14. At least one CNGH0004 polypeptide, comprising at least one polypeptide encoded by at least one polynucleotide that hybridizes under stringent conditions to at least 45 of the contiguous nucleotides SEQ ID NO:1 or a polynucleotide complementary thereto.

15. At least one CNGH0004 polypeptide, comprising at least one of 1-82, 83-259, 259-377, 378-433, 434-438, 438-493, 498-559, 1631-1685, 1690-1743, 1789-1842, 2021-2078, 2083-2141, 2146-2199, 2204-2259, 2264-2318, 2323-2376, 2381-2435, 2440-2493, 2498-2551, 2556-2608, 2660-2712, 2717-2770, 2775-2828, 2833-2886, 2891-2944, 2949-3002, 3007-3059, 3064-3117, 3122-3176, 3181-3236, 3241-3294, 3299-3352, 3357-3411, 3416-3468, 1231-1267, 1269-1305, 1307-1343, 1345-1381, 1383-1419, 1748-1784, 3468-3499, 3504-3531, 3536-3563, 1431-1623, 643-722, 561-642, 1196-1229, 727-787, 1847-1900, 1963-2016, 1905-1958, 999-1036, 1041-1106, 1108-1160, 1-41, or 305-360 of SEQ ID NO:1.

20. A CNGH0004 nucleic acid or CNGH0004 polypeptide according to claim 1, wherein said polypeptide has at least one activity of at least one CNGH0004 polypeptide.

17. A CNGH0004 antibody, comprising a monoclonal or polyclonal antibody, fusion protein, or fragment thereof, that specifically binds at least one CNGH0004 polypeptide according to claim 1.

25. A CNGH0004 nucleic acid encoding at least one CNGH0004 polypeptide or CNGH0004 antibody according to claim 1.

19. A CNGH0004 vector comprising at least one isolated nucleic acid according to claim 1.

20. A CNGH0004 host cell comprising an isolated nucleic acid according to claim 18.

21. A CNGH0004 host cell according to claim 20, wherein said host cell is at least one selected from COS-1, COS-7, HEK293, BHK21, CHO, BSC-1, Hep G2, 653, SP2/0, 293, NSO, DG44 CHO, CHO K1, HeLa, myeloma, or lymphoma cells, or any derivative, immortalized or transformed cell thereof.

35. A method for producing at least one CNGH0004 polypeptide or CNGH0004 antibody, comprising translating a nucleic acid according to claim 18 under conditions in vitro, in vivo or in situ, such that the CNGH0004 polypeptide is expressed in detectable or recoverable

5 amounts.

23 . A composition comprising at least one CNGH0004 nucleic acid, CNGH0004 polypeptide, or CNGH0004 antibody according to claim 1.

24 . A composition according to claim 23, wherein said composition further comprises at least one pharmaceutically acceptable carrier or diluent.

10 25 . A composition according to claim 23, further comprising at least one composition comprising an therapeutically effective amount of at least one compound, composition or polypeptide selected from at least one of a detectable label or reporter, a TNF antagonist, an anti-infective drug, a cardiovascular (CV) system drug, a central nervous system (CNS) drug, an autonomic nervous system (ANS) drug, a respiratory tract drug, a gastrointestinal (GI) tract drug, a hormonal drug, a drug for fluid or electrolyte balance, a hematologic drug, an antineoplastic, an immunomodulation drug, an ophthalmic, otic or nasal drug, a topical drug, a nutritional drug, a cytokine, or a cytokine antagonist.

15 26 . A composition according to claim 23, in a form of at least one selected from a liquid, gas, or dry, solution, mixture, suspension, emulsion or colloid, a lyophilized preparation, a powder.

20 27 . A method for diagnosing or treating a CNGH0004 related condition in a cell, tissue, organ or animal, comprising

25 (a) contacting or administering a composition comprising an effective amount of at least one CNGH0004 nucleic acid, polypeptide or antibody according to claim 1, with, or to, said cell, tissue, organ or animal.

28 . A method according to claim 27, wherein said effective amount is 0.001-50 mg of CNGH0004 antibody; 0.000001-500 mg of said CNGH0004 polypeptide; or 0.0001-100 μ g of said CNGH0004 nucleic acid per kilogram of said cells, tissue, organ or animal.

30 29 . A method according to claim 27, wherein said contacting or said administrating is by at least one mode selected from parenteral, subcutaneous, intramuscular, intravenous, intrarticular, intrabronchial, intraabdominal, intracapsular, intracartilaginous, intracavitory, intracelial, intracelebellar, intracerebroventricular, intracolic, intracervical, intragastric, intrahepatic, intramyocardial, intraosteal, intrapelvic, intrapericardiac, intraperitoneal, intrapleural, intraprostatic, intrapulmonary, intrarectal, intrarenal, intraretinal, intraspinal, intrasynovial, 35 intrathoracic, intrauterine, intravesical, intralesional, bolus, vaginal, rectal, buccal, sublingual, intranasal, or transdermal.

30 . A method according to claim 27, further comprising administering,

5 prior, concurrently or after said (a) contacting or administering, at least one composition comprising an effective amount of at least one compound or polypeptide selected from at least one of a detectable label or reporter, a TNF antagonist, an anti-infective drug, a cardiovascular (CV) system drug, a central nervous system (CNS) drug, an autonomic nervous system (ANS) drug, a respiratory tract drug, a gastrointestinal (GI) tract drug, a hormonal drug, a drug for fluid or electrolyte balance, a hematologic drug, an antineoplastic, an immunomodulation drug, an ophthalmic, otic or nasal drug, a topical drug, a nutritional drug, a cytokine, or a cytokine antagonist.

10 31. A device, comprising at least one isolated CNGH0004 polypeptide, antibody or nucleic acid according to claim 1, wherein said device is suitable for contacting or administering said at least one of said CNGH0004 polypeptide, antibody or nucleic acid, by at least one mode selected from parenteral, subcutaneous, intramuscular, intravenous, intrarticular, 15 intrabronchial, intraabdominal, intracapsular, intracartilaginous, intracavitory, intracelial, intracelebellar, intracerebroventricular, intracolic, intracervical, intragastric, intrahepatic, intramyocardial, intraosteal, intrapelvic, intrapericardiac, intraperitoneal, intrapleural, intraprostatic, intrapulmonary, intrarectal, intrarenal, intraretinal, intraspinal, intrasynovial, intrathoracic, intrauterine, 20 intravesical, intralesional, bolus, vaginal, rectal, buccal, sublingual, intranasal, or transdermal.

25 32. An article of manufacture for human pharmaceutical or diagnostic use, comprising packaging material and a container comprising at least one isolated CNGH0004 polypeptide, antibody or nucleic acid according to claim 1.

30 33. The article of manufacture of claim 32, wherein said container is a component of a parenteral, subcutaneous, intramuscular, intravenous, intrarticular, intrabronchial, intraabdominal, intracapsular, intracartilaginous, intracavitory, intracelial, intracelebellar, intracerebroventricular, intracolic, intracervical, intragastric, intrahepatic, intramyocardial, intraosteal, intrapelvic, intrapericardiac, intraperitoneal, intrapleural, intraprostatic, intrapulmonary, intrarectal, intrarenal, intraretinal, intraspinal, intrasynovial, intrathoracic, intrauterine, intravesical, intralesional, bolus, vaginal, rectal, buccal, sublingual, intranasal, or transdermal delivery device or system.

35 34. A method for producing at least one isolated CNGH0004 polypeptide, antibody or nucleic acid according to claim 1, comprising providing at least one host cell, transgenic animal, transgenic plant, plant cell capable of expressing in detectable or recoverable amounts said polypeptide, antibody or nucleic acid.

35 35. At least one CNGH0004 polypeptide, antibody or nucleic acid, produced by a method according to claim 34.